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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/876,781	06/07/2001	David S. Klutz	2957	8854

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EXAMINER	
BOYD, JENNIFER A	

ART UNIT	PAPER NUMBER
1771	4

DATE MAILED: 01/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

FILE MK-2

Office Action Summary	Application No.	Applicant(s)	
	09/876,781	KLUTZ ET AL.	
	Examiner	Art Unit	
	Jennifer A Boyd	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 June 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-75* is/are pending in the application.

4a) Of the above claim(s) *1-22* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *23-75* is/are rejected.

7)☒ Claim(s) *27,28,36,37,40-43,47-53,56,57,59-61,67,68 and 72-75* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

   I. Claims 1-22, drawn to a process for finishing a fabric, classified in class 8, subclass various

   II. Claims 23 - 75, drawn to a cellulosic fiber fabric, classified in class 442, subclass 107.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process such as applying the softener by means of a fluid bath.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Sara Current on December 20, 2002 a provisional election was made without traverse to prosecute the invention of Group II, claims 23 - 75. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1 – 22 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Objections

6. Claims 27 - 28, 36 - 37, 40 - 43, 47 - 53, 56 - 57, 59 - 61, 67 – 68 and 72 - 75 are objected to because of the following informalities: the claims use the abbreviated terms "owf", "B", "MIU", "RC value", "Tmin", "RG05", "RG25" and "RG50". Please replace the abbreviated terms with the appropriate unabbreviated equivalents. Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. Claims 32 – 75 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claims, claims 32, 40, 44, 45, 48, 51, 56, 59, 63 and 67, recite physical properties woven cotton fabric (i.e. Kawabata System Mean Bending Stiffness, Residual Bending Curvature, Kawabata System DenMax Value, Drape Value, Tmin, Kawabata Shear Stiffness value and MIU). Ex parte Slob, 157 USPQ 172, states the following with regard to an article claimed by defining property values:

> Claims merely setting forth physical characteristics desired in article, and not setting forth specific compositions which would meet such characteristics, are invalid as

> vague, indefinite and functional since they cover any conceivable combination of ingredients, either presently existing or which might be discovered in future and which would impart desired characteristics; thus expression "a liquefiable substance having a liquefaction temperature from about 40°C to about 300°C and being compatible with the ingredients in the powdered detergent composition" is too broad and indefinite since it purports to cover everything which will perform the desired functions regardless of its composition, and in effect, recites compounds by what it is desired that they do rather than what they are; expression also is too broad since it appears to read upon the materials that could not possibly be used to accomplish purposes intended.

Furthermore, it is necessary that the product be described with sufficient particularity that it can be identified so that one can determine what will and will not infringe. Thus, claims 32 – 75 are indefinite for reciting only the desired physical properties of woven cotton fabric, rather than setting forth structural and/or chemical limitations of said fabrics.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 23 – 24, 26, 29 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Leonard Farias' research report entitled *Comparison Study of Polymer Research Finish to a Conventional Resin System: A Laundering Study.*

As to claims 23 – 24, 26, 29 and 30, Farias et al. teaches a 100% cotton twill fabric treated with a specialty polymer finish comprising a resin and a softener (Objective, page 2). Farias et al. notes that the optimum resin/softener system may require the application of the resin to one side of the fabric (back), or "second face" and the application of softener/lubricant(s) to

the opposite side (face), or "first face", of the fabric (Conclusion, page 17). In Figure 1, one formulation comprises DMDHEU resin, which is a well-known durable press resin, and silicone which functions as a softener (Experimental Approach, page 3).

10. Claims 30 – 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Richardson (US 3,770,489).

Richardson teaches a method for rending cellulose-based fabrics wrinkle resistant by impregnating the fibers with a polymer builder and depositing a film of silicone polymer on the fabric (Abstract). The film of silicone polymer equates to the isolated durable-press resin present on the Applicant's fabric. Additionally, softeners can be added to improve the hand of the fabric and may be added to the impregnation solution (column 4, lines 61 – 67).

Claim Rejections - 35 USC § 102/103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 32 – 35, 38 – 46, 48 – 51, 53 – 65 and 67 - 75 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Leonard Farias' research report entitled *Comparison Study of Polymer Research Finish to a Conventional Resin System: A Laundering Study.*

Farias teaches the claimed invention but does not explicitly teach the claimed Kawabata System Mean Bending Stiffness of about 0.42 or greater, a Residual Bending Curvature @ $0.5cm^{-1}$ value of about 0.75 or less as required by claim 32, Flat-Dry Appearance Rating of at least about 2 as required by claims 33 and 69, of at least about 3 as required by claims 34 and 70, of at least 3.5 or greater as required by claim 71, and of at least about 4 as required by claim 35 when tested according to AATCC Test Method 124-1996, a Kawabata System MIU value of about 0.178 or less as required by claims 38 and 67, Drape Value of about 300 or greater as required by claims 39 and 44, a Kawabata System DenMax Value of about 0.565 or greater as required by claims 40 and 44, a MIU of about 0.190 or less as required by claim 40, a Kawabata System RC value of about 43 or greater as required by claim 41, a value of about 45 or greater as required by claim 42, and a value of about 48 or greater as required by claims 43 and 45, a Tmin of about 0.76 or less as required by claims 45 and 48, a B of about 0.415 or greater as required by claim 48, a Tmin of about 0.74 or less as required by claim 49, a B of about 0.45 or greater as required by claim 50, Kawabata system mean Shear Stiffness value of about 3.25 or greater as required by claims 51, 56 and 59, a RG05 of about 1.5 or less as required by claim 51, a RG05 value of about 1.3 or less as required by claim 53, a mean Shear Stiffness value of about 3.5 or greater as required by claims 54, 58, and 62, a mean Shear Stiffness value of about 3.7 or greater as required by claim 55, a RG25 of about 2.8 or less as required by claim 56, a RG25 value of about 2.5 or less as required by claim 57, a RG50 value of about 4.2 or less as required by claim 59, a RG50 value of 4 or less as required by claim 60, a RG50 value of about 3.6 or less as required by claim 61, a Drape Value decrease from the initial drape after 5 Home Launderings as required by claim 63, initial drape of at least about 300 as required by claim 64, a Drape Value

after 5 Home Launderings is about 272 or lower as required by claim 65, a MIU of about 0.175 or less as required by claim 68, a B of about 0.515 or greater as required by claim 72, a MIU of about .25 or less as required by claim 72, a MIU of about 0.2 or less as required by claim 73, a MIU of about 0.18 or less as required by claim 74 and a B value of about .517 or greater as required by claim 75, it is reasonable to presume that the above mentioned properties are inherent to Farias. Support for said presumption is found in the use of like materials (i.e. a 100% cotton woven fabric treated with a durable press resin) which would result in the claimed property. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the mentioned properties would obviously have been present once the Farias product is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977) as to providing of this rejection made above under 35 USC 102. In the present invention, one would have been motivated to have the above mentioned properties in order to provide a flexible, soft and durable cotton fabric.

As to claim 46, the features of the patent is set forth above.

Claim Rejections - 35 USC § 103

13. Claims 25, 27, 28, 36, 37, 47, 52 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leonard Farias' research report entitled *Comparison Study of Polymer Research Finish to a Conventional Resin System: A Laundering Study.*

As to claim 25, Farias discloses the claimed invention except for that the filling yarns are predominant on the back surface of the woven fabric. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the back surface with predominant filling yarns since it has been held to be within the general skill of a worker in the

art to select a known material on the basis of its suitability for the intended use as a matter of design choice. *In re Leshin*, 125 USPQ 416. In the present invention, one would have been motivated to have the back surface with predominating filling yarns to create a visually appealing fabric.

Farias discloses the claimed invention except for the softener comprises at least about 6% owf as required by claims 27, the durable press resin comprises at least 5% owf as required by claims 28, 35 and 47 and at least about 9% owf as required by claims 37 and 52 and weight of about 8 oz/yd. It should be noted that the percentage of softener and durable press resin and the weight of the fabric are result effective variables. For example, as the amount of softener increases, the fabric becomes smoother and more flexible. Additionally, as the amount of the durable press resin increases, the fabric becomes stiffer and more resistant to wrinkling. As the weight of the fabric increases, the fabric becomes more durable. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make a cotton fabric with at least about 6% owf as required by claims 27 and the durable press resin comprises at least 5% owf as required by claims 28, 35 and 47 and at least about 9% owf as required by claims 37 and 52, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have been motivated to optimize the level of softener, durable press resin and weight of the fabric in order to have a soft yet durable fabric resistant to wrinkling.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A Boyd whose telephone number is 703-305-7082. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Jennifer Boyd
Jennifer Boyd
January 13, 2003